SAN JOAQUIN FARM BUREAU FEDERATION
MEETING TODAY'S CHALLENGES / PLANNING FOR TOMORROW

February 7, 2006

FEB 07 2006 00151

Mr. Paul Marshall
SDIP EIS/EIR Comments
State of California Department of Water Resources
Bay Delta Office
1416 Ninth Street
Sacramento, CA 95814

Dear Mr. Marshall:

The San Joaquin Farm Bureau Federation is concerned that the Draft SDIP DEIR/S does not adequately address the decades-long conflicts between the legal water users farming in the South Delta and the important export contracts to farmers elsewhere in our county and state. We are disappointed that DWR missed this opportunity to incorporate the feasible solutions that have been submitted to them on many previous occasions to mitigate these conflicts and we offer the following comments on the SDIP DEIS/R.

PURPOSE: The project purpose should be to fully mitigate the adverse impacts to the area caused by the projects, to meet all existing water quality standards, and to satisfy the needs of all beneficial uses in the area pursuant to the Delta Protection Act. As written, the project purpose allows for water levels and quality to be maintained at what DWR and USBR deem adequate, rather than what the local diverters believe is adequate or what is required by statute or permit conditions. This is necessary both to protect the farmers in the South Delta and to protect the farmers dependent on exports from unreliable deliveries due to the system conflicts that have been allowed to persist for decades.

San Joaquin Farm Bureau agrees with and supports comments submitted by the South Delta Water Agency as follows:

SALINITY: Actual operations of the barriers, Clifton Court Forebay and the CVP Tracy Pumping Plant will affect the water quality in the southern Delta channels. The system should be operated to maximize water quality in the channels in line with CALFED's goal of continuing improvements in water quality. Such efforts will not only be beneficial to local diversions, but will improve export quality also to the benefit of municipal and agriculture export users.

BARRIER OPERATION: Current language in the DEIR/S suggests that use of the barriers in summer will be allowed most of the time and that use during other times will be contingent on other factors and may not be allowed. There must be assurance that the barriers and other facilities will be operated when and as needed to protect the in-channel water supply and quality. This protection must not be subject to being overridden to satisfy other interests. Fishery concerns may create a tension with barrier operations, but both are mitigation for project operations and one should not trump the other. If the projects cannot protect fisheries and local diversions, then exports must decrease to the point where such complete protection is provided.

WATER LEVELS: The draft SDIP plans to do specified dredging and then operate barriers so that the water level at any point in the channels downstream of the HOR will not fall below 0.0 ft msl, and will have adequate depth at that level for continuous operation of local diversion facilities. This level is lower than that maintained with temporary barriers. The barriers are proposed to be operated so that there is a

3290 NORTH AD ART ROAD • (209) 931-4931 • STOCKTON, CALIFORNIA 95215

net unidirectional reverse flow from the Middle River barrier up to Old River; a net unidirectional reverse flow from the Old River barrier near Tracy up and through the connecting channels to Grant Line Canal; and a net unidirectional flow in Grant Line Canal over the Grant Line barrier/weir. Alternatively the flows in Old River and Grant Line can be switched so that the upstream flow is in Grant Line and the downstream flow is in Old River.

DWR modeling indicates that this lower level is satisfactory. However, there is no margin of error. If the modeling is off for any reason, operations may not be flexible enough to correct the problem while still maintaining water quality. [This is due to the tension between the two goals; raising the barriers to help levels will decrease net flows and adversely affect quality. The program should insure that water levels are kept at heights that actually do allow for local diversions to continue as needed and without impairment.

DWR and USBR should commit to keeping water levels at heights "which will allow for local diversions to continue as needed and without impairment." If proposed operations do not provide such protection, DWR and USBR should commit to supplementing the tidal inflow so that adequate depth can be maintained while still providing circulation for quality concerns. This supplemental flow will most likely involve the use of low-lift pumps at one or more of the tidal barriers. This contingency option should be included in the final EIR/S.

NET FLOWS/MAINTAINING WATER QUALITY: Modeling indicates that under certain conditions and during the two neap tide cycles each month with average local diversions, net flow upstream in Middle River and Old River is low such that there is an insufficient flushing of salts and other constituents. During these times, it is likely that water quality on Old River, and perhaps also on Middle River will exceed the standard. During times of peak local diversions, modeling indicates that the flows in the upstream areas of Old River and Middle River will rarely be in the upstream direction (as the SDIP purports to establish for the maintenance of water quality). Generally, the flows will be back downstream creating a null zone in each channel. Even when the flow under these conditions is back upstream, it is far less than what is necessary to have any meaningful flushing of the channel.

This lack of salinity control will generally occur twice each month over four to seven day periods at a minimum, and at most (under peak depletion times) during the entire month. Although DWR modeling of these conditions uses July of 1995 as the worst case scenario, this does not mean these conditions can be assumed to be rare. It is likely that they will occur in many summer or fall months. DWR modelers have proposed that to address this situation, the Old River barrier can be used as a weir instead of the Grant Line Canal barrier. Particle tracking indicates that with such a change (under monthly average diversions, not with peak diversions) the constituents of Old River water will be flushed out downstream over a three to five day period. This does provide a flushing, but it is unknown if that will be enough. That channel is expected to get even more municipal discharges in the near future, and already experiences low DO levels and elevated salinities.

Given the lack of margin of error in water level portion of the program, it is not certain that switching the flow patterns will solve the problem. Therefore, just as the water level concerns require supplementing the incoming tidal flows, so too must this option be considered for the water quality aspect of the project. It appears that a commitment to the low-lift pumps is necessary to make the program work as anticipated.

The water quality analysis and modeling supporting the program should be updated. Currently the model used incorporates an assumed salinity concentration for local discharges. However, this assumption derives from a survey that lumps portions of the Central Delta with the South Delta to arrive at an average discharge salinity. Central Delta discharges from the area included have discharge salinities well below

those in the South Delta and consequently, the assumption in the modeling greatly understates the salinity of the return flows. This in turn results in an understatement of the water quality in the channels and the effects of the SDIP barriers.

TOM PAINE SLOUGH: A question exists as to whether or not Tom Paine Slough will fill under the manipulated tidal conditions of the SDIP. In recent years, the Slough has experienced significant problems of insufficient water levels. A number of causes have been proposed, but the effects of export pumping on the ability of the channel to get water into the Slough is at least a part of the underlying causes. Prior investigations by SDWA and USBR in their 1980 Report indicate that channel resistance in the area greatly increases and therefore the normal degradation of the channel bottoms may have exacerbated the "normal" problem of filling the slough such that it cannot now fill during the time available. At this time, DWR modeling indicates that SDIP will not make it any easier to fill the Slough and may make it more difficult. The program should include measures to insure that the Slough will fill as needed.

SAN JOAQUIN RIVER: The SDIP proposes to address the channels west of the HOR and not the mainstem. The program should not separate out two portions of the same problem; the adverse effects of the SWP and CVP on water levels, quality and flows in the South Delta. The SDIP assumes that under monthly average depletion conditions, minimum flows of 700 - 800+ cfs will be present at Vernalis to supply the necessary 500 cfs into HOR while still providing depletion needs and downstream flow towards Stockton. [SDIP assumes operation or the HOR such that 500 cfs flows into Old River when mainstem flows are 700 - 2,200. Above 2,200, the barrier is proposed to be fully open. Below 700 the barrier is also fully opened.] The 700 - 800+ cfs amount is based upon 150 - 200 cfs of diversions from Vernalis to HOR plus the 500 cfs regulated into Old River with the remaining flow, if any, providing net downstream flow towards Brandt Bridge. When peak diversions are modeled, the 500 flow into HOR must be raised to 700 cfs during the neap tide periods in order to maintain water levels (this additional inflow has no effect on the lack of net flow/water quality problem identified above). In such an event, the minimum Vernalis flow to provide these needs is somewhere near 1,000 cfs in order to again maintain some sort of net downstream flow to Brandt Bridge.

Current modeling of the San Joaquin River predicts that these summer flows may decrease to approx 600 cfs. When the flows drop below approx 1,000 cfs at Vernalis, many local diversions on the mainstem are unable to draw water out of the river due to low levels. If the flows drop below 700 - 800+ cfs, the SDIP still requires 500 - 700 flow through the HOR. Given the depletions upstream on the mainstem, that required flow will result in reverse flows in the Brandt Bridge area towards HOR. In that circumstance, the SDIP will be lowering the levels in the mainstem and exacerbating the diversion problem. This reverse flow into Old River is anticipated to further lower levels on the mainstem to the detriment of local diverters. SDWA asserts that pre-project, the tidal waters reached all the way to Vernalis, and that the tidal effect helped provide the necessary water height notwithstanding low River flows.

DWR and USBR must commit to providing a minimum flow on the River through recirculation, exchanges, or other means. They should also commit to meeting the water quality standard at Brandt Bridge with downstream flows and not allow reverse flows on the mainstem to occur. Such downstream flows will provide help in maintaining the DO levels at the Stockton Deep Water Ship Channel. In addition, DWR may want to explore dredging and intake alterations along the mainstem to minimize the extra flows needed.

BARRIER EFFECTS ON FLOOD FLOWS: It appears that SDIP modeling for flood flow effects in the DEIR/S is insufficient. The analysis appears to have compared the HOR channel cross-section as it now is with the cross-section after dredging for the barrier but without the barrier in place. Thus the modeling gives no meaningful data on flood flow effects. Other barriers were not examined, but were assumed to

have no effects. This deficiency in modeling must be corrected in the final EIR/S DWR must consult with local Reclamation Districts and their engineers to fully analyze the flood flow effects of the barriers. The barriers need to be flood neutral as are all other in-water works in the Delta.

MAINTENANCE DREDGING: In order to maintain the efficiency of the barriers, maintenance dredging is required to insure barrier operations continue as planned. Since the barriers are mitigation for the adverse effects of the SWP and CVP on local beneficial uses, it should be the obligation of the projects to make sure the barriers continue to work. That obligation should include maintenance dredging.

DOWNSTREAM DIVERSIONS: The barrier program will adversely affect water levels downstream of the structures. The SDIP includes necessary changes to diversion intakes and dredging as necessary. It appears that Victoria Island is also experiencing this problem and will need to be added to the project, especially if 8500 is approved.

OTHER: Both the 1995 Water Quality Control Plan for the Bay-Delta and D-1641 recognized that the previous salinity monitoring locations will no longer be representative of conditions throughout the channels once barrier operation create altered flow patterns. New monitoring points must therefore be representative of salinity throughout the channels during each mode of operation.

The San Joaquin Farm Bureau believes these corrections to the SDIP to be reasonable and feasible and urges DWR to incorporate them. They are necessary to mitigate current impacts and must be incorporated before any increase is possible in the export rates.

Sincerely,

Mike Robinson
President